
ENVIRONMENTAL Fact Sheet



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Asbestos Facts for Appraisers and Realtors

General

Asbestos is a naturally occurring mineral which, when mined and reduced to a state of microscopic sized fibers for processing, has been commercially utilized in the manufacture of a variety of familiar products. Based on the results of a number of health studies, it is now recognized that asbestos can endanger human health. The inhalation of asbestos fibers is known to cause a debilitating and irreversible respiratory illness known as asbestosis, as well as lung cancer and mesothelioma cancer. The latency period associated with these diseases can involve several decades.

Because inhalation is the exposure route of concern, it is important to prevent asbestos fibers from becoming airborne, being directly contacted, or entering surface waterways. Proper control of these issues is the underlying objective in properly handling any asbestos containing material.

As a natural mineral, asbestos is not water soluble and does not move through groundwater to any appreciable extent. Based on studies of other water insoluble particles of similar size, the expected migration rate is approximately 1 to 10 centimeters per 3,000 to 40,000 years. Thus, asbestos is not considered to be a significant groundwater contaminant.

Although asbestos does not "move" with groundwater, it still may be a drinking water contaminant. Many thousands of miles of municipal supply and waste water lines were built with asbestos cement pipe (also known as transite pipe). Corrosive water, common in New England, liberates asbestos fibers in this type of pipe and transports them to households. The actual breakdown process can be caused by one of the following: a scrubbing action caused by water velocity at the perimeter of the pipe or breakdown of the Portland Cement Asbestos Fiber Binder either mechanically or chemically. It has been estimated that approximately 5% to 10% of the population nation wide may be drinking water that contains greater than 300,000 asbestos fibers per liter.

The current asbestos fiber content of drinking water that is permitted according to the Summary of United States Environmental Protection Agency (USEPA) Required, Recommended, and Proposed Drinking Water Standards for Community Water Supply Systems is 7.1 million fibers/liter unlimited consumption. Medical studies have determined that the risk level for a person consuming 2 liters of water/day contaminated with 300,000 asbestos fibers/liter for 70 years would have a one (1) in 100,000 chance of developing gastrointestinal cancer. In most cases, the fibers would simply pass through the digestive tract and be discharged as body waste. The probability of asbestos contaminated sludge from a waste water treatment plant creating a

problem by reintroducing the fibers to the earth's atmosphere is considered insignificant, according to researchers at Cornell University, Ithaca, N.Y.

Property Issues

The State of New Hampshire considers asbestos waste as a solid waste requiring special handling, an approach that coincides with federal policy. The impact on homeowners and property owners in New Hampshire today is that property which contains asbestos products of any type is often deemed by public sentiment to have liabilities attached. An estimated 80% of all buildings constructed before 1978 contain asbestos materials. Asbestos can be found in the following materials which are listed merely as examples of asbestos containing materials. The list should not be construed as being all inclusive.

siding	boiler insulation	floor tiles	plaster
roofing materials	ceiling tiles	mastics/adhesives	gaskets
pipe insulation	linoleum	spray applied insulation	

At one time asbestos was not considered to be a health threat and waste asbestos was often used as fill material. As a result of this, asbestos contaminated properties (ACP) exist throughout New Hampshire, especially in the Nashua/Hudson area. ACP are defined in the New Hampshire *Solid Waste Rules* as sites that are not permitted to receive asbestos, where asbestos waste either on the surface or subsurface, is located. In these two communities, asbestos waste materials generated by a large manufacturing plant in Nashua (the Johns-Manville plant) were offered to property owners as "free fill" over a period of several decades. This "free fill" policy was terminated in the late 1970s, but resulted in numerous ACP throughout the area. The current site status of the property must be ascertained prior to sale, and disclosed to prospective purchasers. Evaluation of the market value will be based on the site status. Financial institutions may require a "full closure" status prior to loan approval. A listing of ACP is available from the office of the New Hampshire Association of Realtors or the Department of Environmental Services. The list is updated annually, on a statewide basis, with semi-annual updates prepared for Nashua and Hudson.

Definitions of Asbestos Containing Material (ACM)

Friable ACM means any material which contains more than 1% asbestos and can be crumbled, pulverized, or reduced to powder by hand pressure.

Non-friable ACM means any material which contains more than 1% asbestos and can not be pulverized under hand pressure. Non-friable ACM is divided into two categories. Category I includes packings, gaskets, resilient floor covering, and asphalt roofing products. Category II is any other non-friable ACM not included in Category I.

Regulated asbestos containing material (RACM) includes the following:

- a. friable asbestos material;
- b. Category I non-friable ACM that has become friable;
- c. Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading; and

- d. Category II non-friable ACM that has a high probability of becoming, or has become, crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

Asbestos Removal

Most buildings must be inspected by a certified asbestos inspector for asbestos containing materials prior to any renovation or demolition project taking place. During demolition, friable materials release fibers creating a violation of the National Emission Standards for Hazardous Air Pollutants (NESHAP). Non-friable materials may break up and contaminate the surrounding materials making it necessary to treat all demolition debris as contaminated material. In many cases there are costs associated with personal protection equipment, and disposal of the material, which would be considered an expense to a prospective home buyer.

The removal of non-friable materials including siding, shingles, and roofing can be legally performed by homeowners, regular contractors, or licensed asbestos abatement contractors as long as each does not violate the NESHAP regulations, and work complies with the Occupational Safety and Health Administration (OSHA) regulations as delineated in 29CFR 1926.1101. The health risk involved in handling non-friable non-regulated asbestos material is very small as long as the integrity of the material is maintained. Sufficient fiber concentrations to cause health problems are hard to generate, unless you are drilling, sanding, or sawing such material. The Department Environmental Services (Department) recommends, however, that one wear a disposable tyvek suit, gloves, and if medically fit a half mask respirator with High Efficiency Particulate Air (HEPA) filters when working with asbestos. The Department maintains a list of local suppliers of asbestos related safety equipment. See Fact Sheet [ASB-12](#). The key element to the removal process should be wet removal with "no visible emissions".

The removal of friable/regulated materials in workplaces, schools, public facilities, and dwellings can only be done by licensed asbestos abatement contractors. The one exception to this is the individual homeowner with no tenants doing the work at his own residence. This type of removal, if undertaken by the homeowner, should be done only after thorough preparation from an informational, educational, and equipment standpoint. However, the homeowner may not do this removal in preparation of selling the home. A cutoff point of six months shall be used to determine if the work was preparatory to selling the home (Refer to the NH Code of Administrative Rules Env-C 407.02). A listing of licensed asbestos contractors can be obtained by contacting the N.H. Division of Public Health Services at 603-271-4609.

Proper asbestos removal procedure often involves containment with no visible emissions. Packaging must be in double layers of leak-proof 6 mil thick plastic bags, or double lined boxes, drums, truck beds, or roll-offs. Containers must be labeled to read "Danger - Contains asbestos fibers, avoid creating dust; cancer and lung disease hazard" and have a Class 9 hazard label. The method of disposal should dictate the steps taken during a removal. Packaging for disposal, handling of asbestos waste during transport, and unloading at the time of disposal are all interrelated in that they sequentially affect one another. Non-friable asbestos waste must be packaged the same way friable asbestos waste is, and it must be transported to a landfill permitted for asbestos disposal.

Where property is contaminated in or on the ground surface, and removal is not feasible, the Department recommends that asbestos waste be covered with clean fill material or that it be capped with pavement, concrete, or another approved impervious material. The amount of cover material must be determined based on the local hydrogeological and climatological conditions. The material may then be compacted, graded, seeded and maintained for long-term erosion

control. This should be done only after submitting a Site Safety and Contingency Plan to the Department's Waste Management Division for review and approval. The Department is also exploring other cover options, including the use of geotextiles, to provide functionally equivalent alternatives.

Development activities on asbestos contaminated properties are subject to prior approval by the Department. That is, any activity which may have the potential to disturb asbestos materials (including excavation, grading, drilling, planting, etc.) may not occur until such time as the Department determines the proposed work will not endanger the public health. In accordance with the requirements of the New Hampshire *Solid Waste Rules* Section Env-Wm 2601.06, a permit may be required.

At this time there are no federal or state regulations which require removal of any asbestos products in the single family private home. Removal of friable asbestos is mandated in certain circumstances in public and private schools per the Federal Asbestos Hazard Emergency Response Act of 1986 (AHERA). The State of New Hampshire guidelines for asbestos removal in workplaces, schools, public facilities, and dwellings are delineated in New Hampshire Revised Statutes Annotated (RSA) Chapter 141-E.

Speciality items such as asbestos roof shingles, roof tile, or floor tile need to be identified and the quantities calculated to determine the cost for removal and disposal. A good source of information regarding these matters is the town code enforcement officer, or local the fire department.

Realtors and appraisers should be advised that banks are beginning to consider the presence of asbestos to a liability, and in cases involving "guaranteed sales", or third party sales, they will not accept the liability. The presence of asbestos contamination can generate requests by prospective purchasers and lending institutions that environmental studies or audits be performed on affected properties. Information on asbestos issues as they relate to tax delinquent property is available in Fact Sheet [ASB-15](#).

Further Information

For additional information, contact:

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